

Shepherdia argentea Shrubland [Provisional]

COMMON NAME Silver Buffalo-berry Shrubland
SYNONYM Buffaloberry Shrubland
PHYSIOGNOMIC CLASS Shrubland (III)
PHYSIOGNOMIC SUBCLASS Deciduous shrubland (III.B)
PHYSIOGNOMIC GROUP Cold-deciduous shrubland (III.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (III.B.2.N)
FORMATION Temporarily flooded cold-deciduous shrubland (III.B.2.N.d)
ALLIANCE SHEPHERDIA ARGENTEA TEMPORARILY FLOODED SHRUBLAND ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Terrestrial

RANGE

Badlands National Park

The silver buffalo-berry vegetation type is uncommon and occurs in very small patches. Stands are very dense, typically exceeding 100% vegetative cover. Stands are located near the northeastern park boundary along small drainages and along the White River near the White River Visitor Center.

Globally

This community is found in Colorado, Wyoming, Montana, southern Saskatchewan, and possibly North Dakota.

ENVIRONMENTAL DESCRIPTION

Badlands National Park

Silver buffalo-berry shrublands establish in the riparian zone along the edge of streams and rivers. They appear to establish after species such as cottonwood (*Populus deltoides*) trees have colonized the zone, as well as on the outside margin of cottonwood stands, perhaps because seeds are eaten and distributed by avifauna that roost/nest in these larger trees. Soils are sediments deposited during high flows. The shrubs are excellent bank stabilizers, once established.

Globally

This community is found on stream terraces, rolling uplands, and badlands. It occurs where moisture is more plentiful than on the surrounding landscape, such as in swales, ravines, near streams, and on northwest to east facing slopes (Hansen and Hoffman 1988, DeVelice *et al.* 1995). This trend is more pronounced in Wyoming where Jones and Walford (1995) only found this community near streams and may be less pronounced in Saskatchewan and northern Montana. Soils are loamy sand, sandy loam, silty loam, or loam and are derived from glacial drift, siltstone, or sandstone (USFS 1992, DeVelice *et al.* 1995). This community does not flood often, but some sites show evidence of a high water table (DeVelice *et al.* 1995).

MOST ABUNDANT SPECIES

Badlands National Park

<u>Stratum</u>	<u>Species</u>
Shrub	<i>Ribes odoratum</i> , <i>Toxicodendron rydbergii</i> , <i>Symphoricarpos occidentalis</i> , <i>Shepherdia argentea</i>
Herbaceous	<i>Bouteloua curtipendula</i>

Globally

<u>Stratum</u>	<u>Species</u>
Shrub	<i>Shepherdia argentea</i>

CHARACTERISTIC SPECIES

Badlands National Park

Shepherdia argentea, *Symphoricarpos occidentalis*, *Toxicodendron rydbergii*, *Ribes odoratum*, *Bouteloua curtipendula*

Globally

Shepherdia argentea

OTHER NOTABLE SPECIES

Badlands National Park

Globally

<u>Stratum</u>	<u>Species</u>
Forb	<i>Parietaria pensylvanica</i>
Graminoid	<i>Poa pratensis</i>

VEGETATION DESCRIPTION

Badlands National Park

Silver buffalo-berry shrubland occurs as small stands with dense vegetation cover, often greater than 75%. Stands are always dominated by silver buffalo-berry (*Shepherdia argentea*). Western snowberry (*Symphoricarpos occidentalis*) and side-oats

USGS-NPS Vegetation Mapping Program

Badlands National Park

grama (*Bouteloua curtipendula*) are typical understory associates for two of the three stands sampled.

Globally

This community is dominated by a moderate to dense canopy of medium-tall shrubs. The most abundant of these, *Shepherdia argentea*, is typically 1.5-3 m tall. Other species commonly found in the shrub layer are *Juniperus horizontalis*, *Prunus virginiana*, *Ribes* spp., *Rhus aromatica*, *Rosa woodsii*, and *Symphoricarpos occidentalis*. Herbaceous species are not important in this community. Graminoids and forbs may have only half the coverage of the shrub layer (Hansen and Hoffman 1988, USFS 1992). Graminoids include *Poa pratensis*, *Pascopyrum smithii*, and *Bromus* spp. Common forbs are *Achillea millefolium*, *Artemisia ludoviciana*, and *Parietaria pennsylvanica*. Litter may accumulate in this community (DeVelice *et al.* 1995).

CONSERVATION RANK G3G4. The number of occurrences is unknown. The community is reported from Montana (where it is ranked S3?), Wyoming (?), Colorado (S1), Saskatchewan (S?), and possibly North Dakota (SP).

DATABASE CODE CEGLO01128

MAP UNITS The silver buffalo-berry shrubland is mapped as a separate unit, Map Class 25 (Silver buffalo-berry Shrubland) on the vegetation map.

SIMILAR ASSOCIATIONS

Fraxinus pennsylvanica - *Ulmus americana* / *Prunus virginiana* Woodland (The similarity is based on overall composition, but there are few *Fraxinus pennsylvanica* individuals in CEGLO01128.)

COMMENTS

Badlands National Park

Stands of silver buffalo-berry shrubland at Badlands NP are small, rarely meeting the minimum mapping unit of 0.5 hectares. An attempt was made to map all silver buffalo-berry shrubland stands in the park, regardless of stand size. These stands were well-surveyed during preparation of the vegetation map.

Globally

Livestock and deer frequent these thickets and establish numerous trails throughout. The disturbances open the stands for the invasion of such species as *Symphoricarpos occidentalis*, *Toxicodendron rydbergii*, *Achillea millefolium*, and *Artemisia ludoviciana*.

REFERENCES

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